

Joy Morton, founder



LISLE, ILLINOIS

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## STREET, SHADE AND LAWN TREES TO MEET EVERY PURPOSE

Now that the devastation resulting from Dutch Elm Disease is becoming more and more widespread throughout Northern Illinois\*, there has been a marked change in the heretofore apathetic attitude of many public officials and property owners regarding the disease and the necessity of arresting its spread. With control efforts seemingly accomplishing negligible results, however, attention is being diverted to other usable trees, which while they cannot be expected to take the place of American Elm, are nevertheless considered potentially desirable subjects for landscape planting.

The following reference chart includes seventy-six ornamental trees classified according to rate of growth. Those designated as "fast" can, after they have become established, be expected to grow two feet or more annually during their juvenile years, those designated "moderate," from one to two feet, and the "slow" growers, one foot or less. The tabulation is further subdivided on the basis of approximate ultimate size under local growing conditions, with the "small" trees including those up to 30 ft. in height, the "medium" group those ranging from 30 to 50 ft. and the "tall" growers, subjects 50 ft. or over. Also indicated on the chart is the tree's shape or outline, a significant factor in determining its correct usage, the areas in which it may be expected to thrive, its ornamental attractions and resistance to insect and disease pests. In the remarks column other special features, faults and limitations are noted. In connection with use sites, the recommendations for urban conditions (areas in which multiple dwellings predominate) should, unless otherwise stated, prove equally suited to suburban and rural areas.

\*In four years the City of Rockford has already lost 4000 of its 47,000 Elms, and it is estimated that a further loss of as many as 10,000 trees will occur annually during the next several years. At the Morton Arboretum, the experience has been proportionately the same, 208 elms having been lost (to July 12) since the first four cases of Dutch Elm Disease were discovered in 1956.

Down state in Champaign-Urbana where 8,397 elms or 57% of the original elm population has succumbed, the folly of limiting street tree plantings to a single genus has been forcibly demonstrated. More diversification in the choice of trees is recommended, particularly in the case of street tree projects. For this purpose it is an economic and aesthetic mistake to plant more than 10 to 12% of a cities' streets to any one species.

FAST GROWERS  
(2 ft. or more annually)

Small Trees  
(to 30 ft. or less)

| NAME   | SHAPE | AREA OF<br>ADAPTABILITY | SPECIAL<br>INTERESTS              | REMARKS |
|--|-------|-------------------------|-----------------------------------|---------|
| <i>Morus alba Kingan</i><br>Fruitless Mulberry | Round | Urban                   | Fol. (dark green)<br>F.C.<br>F.C. | R.      |

Medium Sized Trees  
(30 to 50 ft.)

|  |       |       |  |   |
|--|-------|-------|--|---|
| <i>Ailanthus altissima</i><br>Tree of Heaven | Round | Urban | Fol. (luxuriant)<br>Fr. (red, very<br>showy) | R. Use pistillate form<br>only, staminate fls. ill-<br>scented; seeds prolifi-<br>cally |
|--|-------|-------|--|---|

Tall Trees  
(50 ft. or over)

|  |      |          |           |  |
|--|------|----------|-----------|--|
| <i>Acer saccharinum pyramidale.</i><br>Improved Silver Maple | Pyr. | Urb-Sub. | Fol. F.C. | R. More resistant to<br>wind and ice breakage<br>than the type |
|--|------|----------|-----------|--|

|   |                    |       |                    |  |
|---|--------------------|-------|--------------------|--|
| <i>Fraxinus pennsylvanica lanceolata</i><br>Green Ash | Oval to<br>rounded | Urban | Fol. F.C. (yellow) | R. Tolerates drouth, ex-<br>cessive moisture, wind |
|---|--------------------|-------|--------------------|--|

|  |                                    |          |                    |                                     |
|--|------------------------------------|----------|--------------------|-------------------------------------|
| <i>Gleditsia triacanthos</i><br><i>inermis</i> and selected<br>clones ('Moraine',<br>'Imperial', 'Shademaster',<br>etc.) | Vase<br>shapped,<br>flat<br>topped | Urb-Sub. | Fol. fine textured | Mod. R. Shade light but<br>adequate |
| Thornless Honey Locust   |                                    |          |                    |                                     |

|  |      |           |                               |   |
|--|------|-----------|-------------------------------|---|
| <i>Platanus occidentalis</i><br>Sycamore | Oval | Sub-Rural | Fol. (coarse)<br>Bk (mottled) | Mod. R. Likes moisture;<br>a dirty tree |
|--|------|-----------|-------------------------------|---|

|                                     |      |       |  |                                       |
|-------------------------------------|------|-------|--|---------------------------------------|
| <i>Populus alba</i><br>White Poplar | Oval | Urban | Fol. dark green<br>with felty white<br>under surface;<br>bk. (greenish-gray) | Mod. R. Suckers; roots<br>clog drains |
|-------------------------------------|------|-------|--|---------------------------------------|

|  |       |       |  |                                |
|--|-------|-------|--|--------------------------------|
| <i>Quercus borealis maxima</i><br>Northern Red Oak | Round | Urban | Fol. (glossy)<br>F.C. (orange,<br>red) | Mod. R. Subject to Oak<br>Wilt |
|--|-------|-------|--|--------------------------------|

|  |         |       |   |   |
|--|---------|-------|---|---|
| <i>Salix alba tristis</i><br>Golden Weeping Willow | Weeping | Urban | Fls. (catkins),<br>Twigs<br>(golden yellow) | R. Graceful; roots clog<br>drains; branches brittle |
|--|---------|-------|---|---|

ABBREVIATIONS

|                  |   |                           |  |
|------------------|---|---------------------------|--|
| Irr. = Irregular | Urb. = Urban (areas of<br>multiple dwellings) | Fol. = Foliage            | R. = Resistant to pests                    |
| Pyr. = Pyramidal |   | F.C. = Fall foliage color | Mod. R. = Moderately<br>resistant to pests |
| Umbr. = Umbrella | Sub. = Suburban                               | Fls. = Flowers            |  |
|                  | Rur. = Rural                                  | Fr. = Fruit               |  |
|                  |   | Bk. = Bark                |  |

## MODERATE GROWERS

(1 to 2 ft. annually)

### Small Trees (to 30 ft. or less)

| NAME  | SHAPE               | AREA OF ADAPTABILITY | SPECIAL INTERESTS   | REMARKS   |
|---|---------------------|----------------------|---|---|
| <i>Acer ginnala</i><br>Amur Maple                                 | Round               | Urb-Sub.             | Fol. Fr. (red)<br>F.C. (orange to scarlet)                    | R. Dense  |
| <i>Alnus glutinosa pyramidalis</i><br>Pyramidal European Alder    | Narrow Pyr.         | Urb-Sub.             | Fol. Fls. (catkins)<br>Upright growth habit                   | R.  |
| <i>Betula populifolia</i><br>Gray Birch                           | Pyr. to Irr.        | Sub.                 | Bk. (white)<br>F.C. (yellow)                                  | Mod. R. Borers the most troublesome problem     |
| <i>Castanea mollissima</i><br>Chinese Chestnut                    | Round               | Sub.                 | Fol. Fls. (white)<br>Fr.                                      | R. Fls. odoriferous                             |
| <i>Cercis canadensis</i><br>Eastern Redbud                        | Vase shaped to Irr. | Sub-Rural            | Fls. (rose pink before the leaves)<br>Fol. F.C. (yellow)      | Mod. R.   |
| <i>Crataegus crus galli</i><br>Cockspur Hawthorn                  | Umbr.               | Urban                | Fls. (May) Fol. (glossy) Fr.                                  | R. An excellent subject                         |
| <i>Crataegus phaeopyrum</i><br>Washington Hawthorn                | Columnar to rounded | Urban                | Fls. Fol. (glossy)<br>F.C. (orange scarlet) Fr. (Chinese red) | R. Tolerates clipping well                      |
| <i>Crataegus punctata</i><br>Dotted Hawthorn                      | Umbr.               | Urban                | Fls. (late) Fol.  | R. The flattest topped Hawthorn; picturesque    |
| <i>Magnolia salicifolia</i><br>Anise Magnolia                     | Pyr.                | Urb-Sub.             | Fls. (white) Fol.   | R. Shapely form; the earliest species to flower |
| <i>Magnolia soulangiana</i><br>Saucer Magnolia                    | Oval to Irr.        | Urb-Sub.             | Fls. (rose pink)<br>Fol. (bold)                               | R. Early flowering, sometimes frosted           |
| <i>Malus arnoldiana</i><br>Arnold Crab                            | Umbr. to rounded    | Urban                | Fls. (pink in bud opening white); Fr. (yellow-red)            | R. Floriferous                                  |
| <i>Malus baccata mandshurica</i><br>Manchurian Crab               | Round               | Urban                | Fls. (white)  | R. The earliest species to flower               |
| <i>Malus purpurea lemoinei</i><br>Lemoine Crab                    | Round               | Urban                | Fls. (dark red)<br>Fr. (purplish red)                         | R. One of the darkest flowered crabs            |
| <i>Malus zumi calocarpa</i><br>Japanese Zumi Crab                 | Round               | Urban                | Fls. (white) Fr. (red or yellow)                              | R. Floriferous; fruit persistent                |
| <i>Tilia platyphyllos pyramidalis</i><br>Pyramidal Bigleaf Linden | Pyr.                | Urban                | Fol. Form   | R. An accent tree                               |

### Medium Sized Trees (30 to 50 ft.)

|   |       |           |   |  |
|---|-------|-----------|---|--|
| <i>Acer miyabei</i><br>Miyabe Maple     | Pyr.  | Sub-Rural | Fol. F.C. (clear gold)                      | R. Shapely                                     |
| <i>Acer platanoides</i><br>Norway Maple | Round | Urban     | Fls. (yellow) Fol. (dark green) F.C. (late) | Mod. R. Furnishes heavy shade; fol. persistent |

MEDIUM SIZE TREES—Continued

| NAME   | AREA OF<br>SHAPE ADAPTABILITY | SPECIAL<br>INTERESTS  | REMARKS   |
|--|-------------------------------|---|---|
| <i>Acer rubrum</i><br>Red Maple                                | Oval                          | Sub-Rural<br>Fls. Fr. (red) Fol.<br>F.C. (red) Bk.<br>(gray)              | Mod. R. Tolerates moist locations; female fls. bright red |
| <i>Aesculus glabra</i><br>Ohio Buckeye                         | Oval to rounded               | Urban<br>Fls. Fol. F.C.<br>(orange)                                       | Mod. R. Leaves early; colors early in fall                |
| <i>Alnus glutinosa</i><br>European Alder                       | Oval<br>Pyr. to Irr.          | Sub-Rural<br>Fls. (brownish catkins) Fol.<br>(dark green)                 | R. Picturesque; prefers moist locations                   |
| <i>Betula nigra</i><br>River Birch                             | Irr.- to oval                 | Sub-Rural<br>Bk. shaggy orange  | R. Prefers moist locations                                |
| <i>Betula papyrifera</i><br>Paper Birch                        | Pyr. to oval                  | Sub-Rural<br>Fol. F.C. (yellow)<br>Bk. (white)                            | Mod. R. Picturesque; subject to borer damage              |
| <i>Carya cordiformis</i><br>Bitternut Hickory                  | Rounded                       | Sub-Rural<br>F.C. (yellow)<br>Winter buds yellow                          | R. Fastest growing hickory; difficult to transplant       |
| <i>Cercidiphyllum japonicum</i><br>Katsura Tree                | Pyr. to rounded               | Sub-Rural<br>Fol. F.C. (yellow to purple)                                 | R. Usually multiple trunked                               |
| <i>Fraxinus excelsior</i><br>European Ash                      | Oval to rounded               | Urban<br>Fol. (deep green)  | R. Uniform in shape                                       |
| <i>Magnolia acuminata</i><br>Cucumber Tree                     | Pyr. to rounded               | Sub-Rural<br>Fol. (bold textured) R. Shapely Fr.                          |   |
| <i>Phellodendron amurense</i><br>Amur Cork Tree                | Round (short trunked)         | Urban<br>Fol. F.C. (yellow)   | R. Bark corky   |
| <i>Phellodendron chinense</i><br>Chinese Cork Tree             | Round (short trunked)         | Urban<br>Fol. (dark green)<br>F.C. (yellow)<br>Fr. (olive green to black) | R. Fruit spectacular                                      |
| <i>Prunus padus commutata</i><br>Harbinger European Birdcherry | Round                         | Urban<br>Fls. (white, early)<br>Fol. F.C.                                 | R. Early leafing; effective in bloom                      |
| <i>Prunus sargentii</i><br>Sargent' Cherry                     | Round                         | Sub-Rural<br>Fls. (deep pink)<br>F.C. red                                 | R. The hardiest of the oriental cherries                  |
| <i>Quercus robur fastigiata</i><br>Pyramidal English Oak       | Columnar                      | Sub-Rural<br>Fol.   | R. A narrow spire-like accent tree                        |
| <i>Tilia cordata</i><br>Littleleaf Linden                      | Pyr. to oval                  | Urban<br>Fol. Fls. (July, fragrant) F.C.<br>(yellow)                      | R. Dense, symmetrical                                     |
| <i>Tilia euchlora</i><br>Crimean Linden                        | Oval                          | Urban<br>Fol. (glossy dark green)<br>Fls. (very fragrant)                 | R. Graceful habit   |
| <i>Tilia moltkei</i><br>Moltke Linden                          | Oval                          | Urban<br>Fol. coarse  | R. Stately  |

**Tall Trees**  
(50 ft. or over)

| NAME   | SHAPE              | AREA OF<br>ADAPTABLE | SPECIAL<br>INTERESTS  | REMARKS   |
|--|--------------------|----------------------|---|---|
| <i>Catalpa speciosa</i><br>Northern Catalpa      | Oval-pyr.          | Urban                | Fol. (coarse) Fls.<br>(white, late June)                          | R. Tolerates heat and<br>drouth; a dirty tree<br>for street planting        |
| <i>Fraxinus americana</i><br>White Ash           | Oval-round         | Sub-Rural            | Fol. F.C. (pur-<br>plish bronze)                                  | R. Tolerant of growing<br>conditions; late leaf-<br>ing; drops leaves early |
| <i>Fraxinus tomentosa</i><br>Pumpkin Ash         | Oval               | Sub-Rural            | Fol. (large) F.C.<br>(yellow)                                     | Mod. R. Symmetrical   |
| <i>Fraxinus quadrangulata</i><br>Blue Ash        | Round              | Urban                | Fol. F.C. (pale<br>yellow) Twigs 4-<br>sided                      | Mod. R. Of uniform<br>outline   |
| <i>Liriodendron tulipifera</i><br>Tulip Tree     | Pyr.-<br>Oval      | Sub-<br>Rural        | Fls. (tulip-like)<br>Fol. (yellow-<br>green) F.C. (clear<br>gold) | R. Stately; prefers a<br>moist, well drained soil                           |
| <i>Platanus acerifolia</i><br>London Plane       | Round              | Urban                | Fol. (bold);<br>Bk (mottled)                                      | Mod. R. Smoke tolerant;<br>tip growth tender dur-<br>ing severe winters     |
| <i>Quercus coccinea</i><br>Scarlet Oak           | Irr. to<br>rounded | Sub-<br>Rural        | Fol. (glossy green)<br>F.C. (bright<br>scarlet)                   | Mod. R. Prefers dry<br>sandy soil; moderate<br>to slow growing              |
| <i>Quercus imbricaria</i><br>Shingle Oak         | Oval               | Sub-<br>Rural        | Fol. (glossy) F.C.  | R. Foliage resembles<br>Bay Laurel  |
| <i>Quercus palustris</i><br>Pin Oak              | Pyr. to<br>round   | Urban                | Fol. (glossy) F.C.<br>(red)                                       | R. Distinctive in outline.<br>Moderate to fast<br>growing                   |
| <i>Tilia petiolaris</i><br>Pendent Silver Linden | Narrow<br>oval     | Sub-<br>Rural        | Fol. (silvery white<br>beneath)<br>Branches pendent               | R. Graceful   |
| <i>Tilia tomentosa</i><br>Silver Linden          | Oval               | Sub-<br>Rural        | Fol. (dark green<br>with white un-<br>dersurfaces)                | R. Shapely  |

**SLOW GROWERS**  
(1 ft. or less annually)

**Small Trees**  
(to 30 ft. or less)

| NAME  | SHAPE                 | AREA OF ADAPTABILITY | SPECIAL INTERESTS   | REMARKS   |
|---|-----------------------|----------------------|---|---|
| <i>Aesculus carnea brioti</i><br>Ruby Horsechestnut               | Round                 | Sub-Rural            | Fol. (bold textured, dark green) Fls. (rose pink, late May) | R. Spectacular in flower                                      |
| <i>Amelanchier grandiflora</i><br>Snowy Shadblow                  | Horizontal            | Urban                | Fls. (white) Fr. (blue, June) F.C. (terra cotta)            | R. Very picturesque   |
| <i>Carpinus betulus</i><br>European Hornbeam                      | Round                 | Urban                | Fol. F.C. (yellow) Fr. Bk. (smooth gray)                    | R. Dense and compact; foliage persistent; a fine screen plant |
| <i>Carpinus betulus fastigiata</i><br>Pyramidal European Hornbeam | Columnar              | Urban                | Fol. F.C. Bk.   | R. Excellent accent or screen tree                            |
| <i>Carpinus caroliniana</i><br>American Hornbeam                  | Irr. to rounded       | Sub-Rural            | Fr. F.C. (orange) Bk. (gray)                                | R. Picturesque multi-trunked tree                             |
| <i>Crataegus lavallei</i><br>Lavalle Hawthorn                     | Horizontal to rounded | Urban                | Fol. (glossy) Fls. Fr. (red, persistent)                    | R. Picturesque  |
| <i>Malus sargentii</i><br>Sargent Crabapple                       | Flat topped           | Urban                | Fls. (late white) Fr. (small, red)                          | R. The pygmy of the crabs                                     |
| <i>Malus "Strathmore"</i><br>Strathmore Crabapple                 | Fastigiate            | Urban                | Fls. (pink) Fol. (reddish)                                  | R. An accent tree; slow to moderate growing                   |

**Medium Sized Trees**  
(30 to 50 ft.)

|   |              |           |                               |   |
|---|--------------|-----------|-------------------------------|---|
| <i>Aesculus hippocastanum</i><br>Horse-chestnut | Oval         | Sub-Rural | Fol. (bold) Fls. (white, May) | Mod. R. Stately; foliage subject to leaf scorch |
| <i>Corylus colurna</i><br>Turkish Hazel         | Pyr. to oval | Sub-Rural | Fol.                          | R. Shapely, robust                              |

### MEDIUM SIZE TREES—Continued

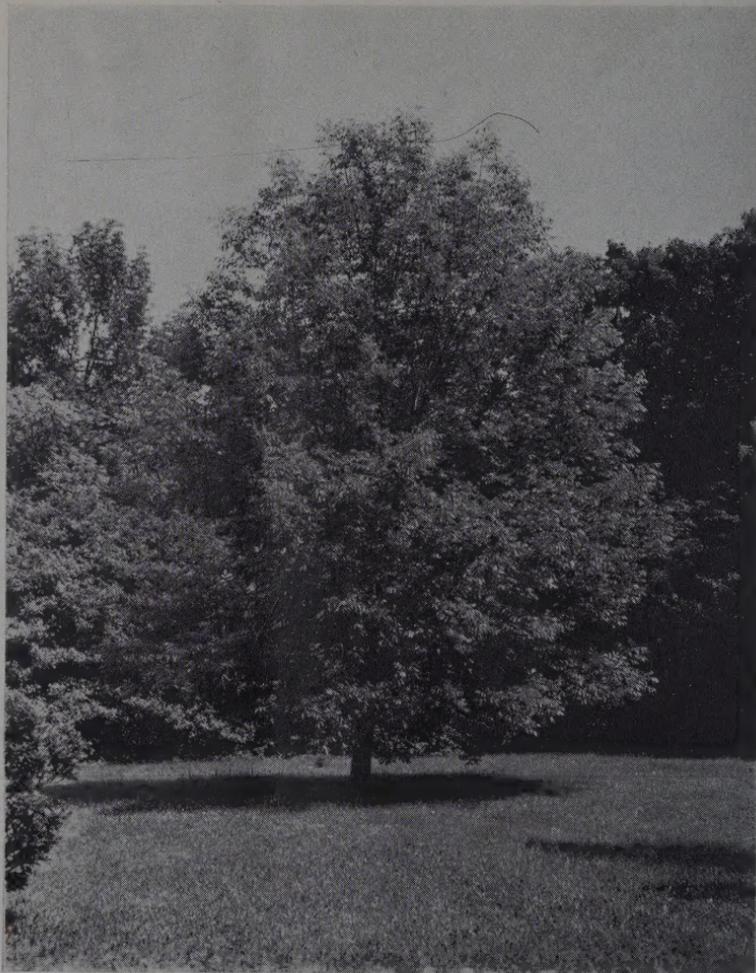
| NAME  | SHAPE              | AREA OF<br>ADAPTABLE | SPECIAL<br>INTERESTS                            | REMARKS   |
|---|--------------------|----------------------|---|---|
| <i>Diospyros virginiana</i><br>Persimmon      | Oval<br>to Irr.    | Sub-Rural            | Fol. Fr. (orange,<br>edible)<br>Bk. (checkered) | R. Picturesque  |
| <i>Nyssa sylvatica</i><br>Sour Gum, Tupelo    | Pyr. to<br>Irr.    | Sub-Rural            | Fol. (glossy)<br>F.C. (scarlet)                 | R. Picturesque  |
| <i>Ostrya virginiana</i><br>Ironwood          | Pyr. to<br>rounded | Sub-Rural            | Fol. Fls. (catkins)<br>Fr. (hop-like)           | R. Shade Tolerant   |
| <i>Ulmus parvifolia</i><br>Chinese Elm (true) | Round              | Urban                | Fol. (glossy green)<br>Fls. (autumn)<br>Bk.     | R. Slower growing than<br><i>Ulmus pumila</i> ;<br>resistant to elm pests |

### Tall Trees

(50 ft. or over)

|  |                                 |           |   |   |
|--|---------------------------------|-----------|---|---|
| <i>Acer saccharum</i><br>Sugar Maple               | Oval                            | Sub-Rural | Fls. (pale yellow)<br>Fol. F.C. (yellow<br>to orange red)               | Mod. R. Stately   |
| <i>Carya ovata</i><br>Shagbark Hickory             | Oval                            | Sub-Rural | Fol. Fr. Bk. (very<br>shaggy) F.C.<br>(yellow)                          | R. Very slow growing  |
| <i>Celtis occidentalis</i><br>Hackberry            | Vase<br>shaped<br>to<br>rounded | Urban     | Fol. F.C. (light<br>yellow) Bk.   | Mod. R. Similar in form<br>to American Elm; sub-<br>ject to Witches Broom |
| <i>Fagus grandifolia</i><br>American Beech         | Round                           | Sub-Rural | Fol. (deep green)<br>F.C. (gold to<br>russet) Bk.<br>(smooth blue gray) | R. A gregarious tree;<br>difficult to transplant;<br>foliage persistent   |
| <i>Fagus sylvatica</i><br>European Beech           | Oval<br>pyr. to<br>rounded      | Sub-Rural | Fol. (deep green)<br>F.C. (gold to<br>russet) Bk.<br>(smooth gray)      | R. Handsome specimen<br>tree; of slow growth;<br>foliage persistent       |
| <i>Ginkgo biloba</i><br>Ginkgo                     | Pyr. to<br>Irr.                 | Urban     | Fol. (light green)<br>F.C. (clear yel-<br>low)                          | R. Very tolerant of<br>growing conditions                                 |
| <i>Gymnocladus dioicus</i><br>Kentucky Coffee Tree | Oval to<br>vase<br>shaped       | Sub-Rural | Fol. (luxuriant)<br>Fr. (brown pods) Bk.                                | R. Of sparse branching<br>habit   |
| <i>Quercus alba</i><br>White Oak                   | Round                           | Sub-Rural | Fls. Fol. F.C.<br>(wine red)  | R. Of majestic bearing;<br>slow growing                                   |

E. L. Kammerer



Pumpkin Ash, *Fraxinus tomentosa* Michx.,  
large leaved species of symmetrical habit.

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